DOCUMENT RESUME

ED 385 110 EC 304 145

TITLE	A Video Technology Program Containing a Complete System of Tactile Communications for Individuals Who Are Deaf-Blind. A Tactile Signing Project: Tactile Interactive Signing and Primitive Signaling (Project TIPS). A Final Narrative Report.
INSTITUTION	Utah State Univ., Logan. Dept. of Communicative Disorders.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	Mar 93
CONTRACT	H180P00041
NOTE	25p.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Communication Skills; *Deaf Blind; Interaction; *Material Development; Parent Participation; *Sign Language; Skill Development; *Tactile Stimuli; *Videotape Recordings
IDENTIFIERS	*Tactile Communication

ABSTRACT

This report describes the development of two sets of videotapes on early tactile signaling and on interactive signing systems to be used with individuals who are deaf-blind. A tactile signal is defined as a touch cue, tactile gesture, and/or action cue, and these motions help to promote communication for the child who is deaf-blind. The process of selecting signals began with a literature review and input from parents and professionals. The signals were then organized into activity units and field tested, after which the signals were optimized as to tactile salience and iconicity, functionality, ease of formation, and resemblance to the formal coactive sign. The videotapes teach the signals in 12 activity units and provide advice to parents on how to use the signals effectively with their child. The topics for the 12 units for parents are identified, and the script from part of a tape is included as illustration. Videotape scripts were also developed for a tactile interactive signing system based on a literature review and a survey of agencies that use interactive tactile communication. A list is included of the 11 topics of these videotapes, and another sample script is provided. (SW)

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ED 385 110

A Final Narrative Report

A Video Technology Program Containing A Complete System of Tactile Communications for Individuals Who are Deaf-Blind

A Tactile Signing Project: Tactile Interactive Signing and Primitive Signaling (Project TIPS)

Technology, Educational Media, and Materials
for the Handicapped Program Compensatory Technology Application

CFDA No. 84.1809

Grant No. H180P00041

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EC304145

Inclusive Dates of Final Report
January 1, 1990 to March 31, 1993

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INTRODUCTION

Project TIPS (Tactile Interactive Signing and Primitive Signaling) was a two year Technology, Educational Media and Materials for the Handicapped Program--Compensatory Technology application funded by the U.S. Office of Special Education Programs. The project was funded from January 1, 1990 to December 31, 1992 with a three month extension to April 31, 1993.

The project was funded to produce media technology prototype video tapes on early tactile signaling and interactive signing systems for individuals with deaf-blindness. Prior to project TIPS, the SKI*HI Institute developed a system of coactive signs (hand-on-hand formal signs) and produced a series of eight video tapes. Project TIPS built on these coactive signing tapes by developing a system of signals and cues that can be used prior to formal coactive sign use and a system of interactive conversational coactive signing. Together these three series of video tapes represent a complete tactile signing system for individuals who are deaf blind.

All project objectives were met. During Year 1, extensive literature reviews were conducted and philosophy and focus statements were developed. Surveys were sent to service providers, parents, and deaf-blind individuals to determine their needs and obtain their suggestions for effective signal and cues and interactive sign use. Programs were visited in the United States and Canada to determine state-of-the art methods of using early signals and cues and interactive signing. Basic signals were selected and optimized as to functionality, tactile salience (easy to feel), tactile iconicity (easy to relate to referent), and ease of formation using input from blind, deaf-blind, and motor impaired consultants. Strategies for effectively using signals and cues and conversational tactile signing were developed.

During Year 2, scripts for the videotapes were written and critiqued by nationally known professionals and by parents. Families, deaf-blind individuals, and instructors were contacted about their participation in filming, and rehearsals were conducted. Filming was then done followed by logging and editing. The final videotape series on tactile communication for individuals who are deaf-blind includes the following:

1. Introduction to Tactile Communication for Children Who are Deaf Blind: One 60-minute videotape.
2. Using Tactile Signals and Cues With Children Who are Deaf Blind: A set of four 60-minute videotapes.
3. A Coactive Sign System for Children Who are Deaf Blind: A set of eight 60-minute videotapes.
4. Using Tactile Interactive Conversational Signing With Individuals Who are Deaf Blind: A set of six 60-minute videotapes.

The following is a summary report of activities leading to the achievement of project objectives. The Tactile Signals and Cues philosophy, content and scripts were developed by staff assigned to this series and The Using Tactile Interactive Conversational Signing philosophy, content and scripts were developed separately by the staff assigned to this series. Then both series were produced together in the production studios. Therefore, this report will first describe the tactile signals and cues activities, then the tactile interactive conversational signing series will be described. After that, the production of the video tapes will be described.

DEVELOPMENT OF TACTILE SIGNALS AND CUES SYSTEM AND VIDEO TAPE SCRIPTS

A literature review on tactile signals and cues was conducted by Barbara Miles and Karen Olson (1993). An innovative computer program was developed for locating and categorizing the literature. The basic focus of this Signals Project arose from this literature review on tactile signals and cues. This review established the fact that signals are important for the communicative development of children who are deaf-blind and that the signals used need to be tactilely conveyed due to the vision and hearing deficits of these children. Based on this information, a major focus of this Signals Project is on the development of children and other individuals who are deaf-blind. The literature review also established the fact that tactile signals used with children who are dual sensory impaired need to be optimized as to tactile salience, tactile iconicity, functionality, and ease of formation. An additional important focus of this project is on optimizing the tactile signals used in the project to make them tactiley salient and iconic, functional, and easy to make. Finally, the literature review established the importance of using various strategies to optimize the use of tactile signals with children and other individuals who are deaf-blind. A third important focus of this project is on developing strategies for parents and professionals that will enable them to use signals effectively with children and other individuals who are deaf-blind.

How the three main foci indicated above were realized is the subject of this section. Four basic proposal are discussed that relate to the foci of this project; that is, how the project developed a signal system, optimized the signals as to tactile salience and iconicity, functionality, and ease of formation, and developed strategies that will enable parents and professionals to effectively use signals with children and other individuals who are deaf-blind. The four basic proposals are: (1) a definition of "tactile signal" to be used in this project, (2) a description of the signals selection process, (3) a description of the process to optimize signals as to tactile salience, tactile iconicity, functionality, and ease of formation, (4) a description of the general content of the video tape series including (a) what signals to use, and (b) how to use the signals effectively.

1. Definition of Tactile Signal Use

This project defines a tactile signal as a touch cue, tactile gesture, and/or action cue. A touch cue is a way of touching or manipulating the child to communicate something to him

or her. For example, a mother putting her hands under the child's elbows and moving them up slightly is using a touch cue for "up." A tactile gesture is helping the child make a natural gesture (such as waving bye-bye or clapping hands approvingly when the child finishes a task). An action cue is cuing the child to an action by doing the action with the child (push, pull) or part of the action (exercise - move arms). In short, tactile signals are motions done with the child or to him or her for communicative purposes. [Note: It was proposed that on the final video tapes, other types of "cues" be shown to the parents. For example, and perhaps most importantly, object cues, including whole objects, parts, miniatures and abstracts (i.e., tangible symbols, textural symbols, etc.) were shown and discussed.]

2. A Description of the Signal Selection Process

The process of selecting signals for this project included the following:

(a) Reviewing literature concerning signals appropriate for young children who are deaf-blind.

(b) Compiling signals appearing on "lists" in the literature.

(c) Conducting a questionnaire survey. Questionnaires were sent to parents, parent advisors, and teachers asking them about the signals they use with children who are deaf-blind (see attachment #1).

(d) Deriving a master list of signals based on frequency of appearance on lists in literature and suggestions from parents and professionals concerning signals they use (questionnaire survey).

(e) Organizing signals into activity units and conducting a field test of those activity units (see attachment #2).

(f) Analyzing questionnaires from the field test to make a final determination of signal selection.

3. Description of the Process to Optimize Signals as to Tactile Salience and Iconicity, Functionality, Ease of Formation, and Resemblance to the Formal Coactive Sign

The project obtained input from blind consultants on the tactile salience, tactile iconicity and ease of formation of the signals on the master list. The issue of functionality has been addressed in the signal selection process: (a) signals reported by parents and professionals on the questionnaire survey are signals they use (functional!), (b) the signals

lists from the literature that were used in the selection process were based primarily on functionality. Staff members (who are familiar with the coactive signs on the Coactive Sign Video Tape Series) provided input on how to make the suggested signals as close to the formal coactive signs as possible.

4. General Outline of Content of Video Tape Series

The video tape series contains information that addresses two basic questions: (a) What signals can I use with my child who is deaf-blind? and (b) How can I use signals effectively with my child?

(a) What signals can I use with my child who is deaf/blind? This portion of the series shows the suggested signals in 12 activity units (see Attachment #2). There are presentation portions, demonstration, and use of clever graphics to teach these suggested signals. All of these signals will have been optimized as to functionality, tactile salience and iconicity, ease of formation, and resemblance to the formal coactive signs.

(b) How can I use signals effectively with my child? There is a series of 12 lessons on how to use signals effectively. These topics include:

Topic 1: Laying a Foundation for Signal Use: Encouraging Child to Relate to People

Topic 2: How To Make Signals

Topic 3: Using Identifier and Anticipatory Signals

Topic 4: Using Signals in Routines and Activities

Topic 5: Encouraging Child to Use Anticipation Signals

Topic 6: Becoming Aware of Signals Your Child Uses

Topic 7: Responding to Your Child's Signals

Topic 8: Encouraging Your Child to Signal Back to You (Turn-taking)

Topic 9: Giving Your Child Choices to Encourage Signal Use

Topic 10: Expanding Signals Use in Routines and Activities

Topic 11: Optimizing Sensory Input in Signal Use

Topic 12: Moving from Signaling to Formal Coactive Signing

The entire video tape series was produced in the following way: (1) scripts were written, (2) story boarding was done, (3) talent was located (children who are deaf-blind and their families were the key participants); and (4) filming and editing were done.

Scripts were written for topics for the Tactile Signals and Cues Section. The script for Tape 1, Topic 1 is included in this report as an example of the scripts.

Tape 1:	Laying the Foundation for Using Signals in Daily Activities and Routines

(Tape ≈ 60 min.)

Topic 1: Encouraging Your Child to Relate to People (≈ 15 minutes)

I'd like to discuss with you some important ways you can lay the foundation for communicating with your child. This foundation will make it possible for your child to learn how to understand your communication or your signals and cues; and it will help your child learn to communicate with you.

The most basic thing you can do to promote your child's communication development is to help him or her relate to people. You are successful in doing this when your child shows he or she would rather be with you and others than left on his or her own or with toys.

There are two important ways you can help your child relate to you:

First, it is important to create an emotional bond with your child. You can do this by hugging, cuddling, smiling, talking, and kissing and even blowing on your child. You can also play touch games such as "gonna getcha" or "pat-a-cake." Your child learns in these

warm, human-contact activities that it is more enjoyable to be with you and relate to you than to be alone.

Second, it is important to gently, warmly, and precisely guide your child through routines and activities like dressing, feeding, bathing, and playtime. In these activities, you are the eyes and ears of your child. You are teaching your child what is involved in doing these daily activities, how to participate in them, and how to interact with others while doing them.

The child who is dual sensory impaired is extremely limited or may not be able to participate in activities and interact with others on his own. It is important to realize that the child who is dual sensory impaired does not learn like the child who can hear and see. Children who hear and see learn mainly through indirect learning - they "live and learn" so to speak. Children who are dual sensory impaired must be taught everything directly. They must be taught one-on-one. The child who is dual sensory impaired learns primarily through touch. The child does not learn like the deaf child, who uses sight to learn, or like the blind child, who uses hearing to learn. If the child who is hearing and vision impaired is left alone, he or she will do what many children like him or her do best - almost nothing! For example, it may be easiest to simply put the child who is dual sensory impaired on the toilet and leave him or her momentarily as is often done with other children. But if this is done, the child will learn very little. He or she will not be getting auditory and visual input about the experience and will not be learning from it as other children do. The child needs someone to help him or her learn, tactilely, every part of the toileting activity. Let me show you what I mean.

[demonstration]

As you gently assist your child through routines and activities and as you create a loving emotional bond with him or her, the child will learn to enjoy relating to you and participating in activities with you. It is important that the child has a sense of security and trust and knows that you like him or her and enjoy being with them. Establishing this trust and security will help your child want to relate to others and learn how to interact with them.

As you guide your child through activities and as you establish an emotional bond with him or her, the child will become more cooperative with you and will enjoy being with you more and more. As you begin this process, however, your child may show some resistance to you. This may be because your child may not yet know that you are more rewarding and enjoyable to be with than being left alone or with toys. Your child may not feel secure or comfortable with a particular routine, or he or she may simply dislike something. Continue to lovingly, gently assist your child through activities and show your affection in play and enjoyable routines. It takes time to develop a bond. It is also possible that your child is resisting you because he or she is not sure about what is happening to them and why. Make sure you always let your child know what is happening and why it is happening. For example, help him or her feel a wet diaper [demo "your diaper is wet"], then let him or her feel a dry diaper ["here's a dry diaper"]. Let the child feel you take off the wet diaper and put on the dry one ["Let's take off this wet diaper. Lets' put on this dry diaper. Oh, that dry diaper feels good."] Gradually your child will move from resisting you to tolerating you, and then to cooperating with you. As your child cooperates with you more and more, he or she is letting you know that they feel secure with you and would rather be with you than alone. Your child is beginning to learn that interaction with others is rewarding and fun . . . and that is the basis upon which communication will develop.

DEVELOPMENT OF TACTILE INTERACTIVE SIGNING SYSTEM AND VIDEOTAPE SCRIPTS

A comprehensive literature review was conducted by Margaret Costello, Deborah Haslem, Nancy O'Donnel and Susan Ruzenski. An innovative computer search system was developed and used to categorize sources of information. A summary of the review follows.

The critical issue in facilitating communication development in a deaf-blind child is to know the individual child. Careful observation during interactions should focus on gathering the following types of information:

The Communication Environment

- Who are the people who can provide the best communicative support, not only linguistically, but also emotionally?
- What are the best environments for facilitating early communication skills?
- What natural, pleasing events occur within the child's routine?
- What objects are present within these events?

Current Communicative Behaviors/Intentions

- What types/functions of non-symbolic communication is the child using to convey thoughts ideas, needs, or wants?
- In what ways does the child show communicative intent?
- Are these messages conveyed naturally through such gestures as pointing or a head nod?
- How does the facilitator respond to the child's very basic movements and behaviors?
- Are the principles of Van Dijk's approach, including resonance and coactive responses, being employed?
- Are there natural reinforcements or consequences so as to give the child an indication that her or his intentions are being responded to and therefore is exerting control over their environment?
- What are the messages conveyed by object manipulation, pointing, manipulation of others in the environment, facial expressions, vocalizations, eye gaze, body movement and behavior?

Guidelines for Intervention

We cannot discuss the teaching of sign language to individuals who are deaf-blind without considering their whole communication system. The following are strategies which should be kept in mind when devising a communication program for an individual who is deaf-blind:

- **Provide accurate, consistent linguistic models of ASL to the child who is at the point where they are learning signs. We cannot expect children to develop linguistic competence if they do not have a linguistic model.**
- The concepts chosen for symbolic representation must be ones the child is already trying to express through other non-symbolic ways.
- The facilitator must carefully consider the communication skills of the child and then "up the ante" by providing a model at the next level.
- The vocabulary must be immediately useful to the child.
- There must be frequent opportunities to employ the vocabulary.
- The use of these signs should result in naturally reinforcing consequences.
- The mode should be deemed appropriate, giving consideration of the severity of sensory and orthopedic impairments.
- Turn-taking strategy can be done not only as a correction, or when playing games, but in conversation. For example, a child may sign "eat" to mean "I want to eat." The instructor may respond by signing "You eat? Me eat same. Bread, give-me," meaning "You want to eat? I want to eat too. Give me some bread," thus modeling two or three word phrases and responding to the request.
- Interactions with peers who are not disabled should be encouraged to promote spontaneous communication.
- Pair deaf students skilled in ASL with deaf-blind students whose language skills are not as proficient to provide good linguistic role models.
- Encourage dialogue and use a variety of communication methods to ensure that the learner understands the message.

Recommendations for Videotape

In general, the tape should follow a sequential model, using Van Dijk's ( ) approach as the basis. Examples of different learners and facilitators should be captured at the various levels of communicative competence. Perhaps parents can explain how their interactions with their child started out, various milestones that were reached, current methods that the child uses, and the short term communication goals that they have. It would also be beneficial if the parents could describe the types of support they received, if any, from family members. Also, what types of resources (classes, books, seminars, videotapes, etc.) did the parents use to increase their knowledge about their child's special communication needs, and were the resources helpful? In addition, the following suggestions should be considered:

1. Filming should occur in environments in which the child normally performs activities throughout his or her daily routine.
2. Naturally occurring events that are meaningful to the child and which follow everyday sequence with a variety of people (mother, siblings, peers, substitute caregivers, teachers) should be included. Communicative "successes" and "failures" should be included to foster reasonable expectations.
3. Signs which are introduced should be selected after consideration of variables of iconicity, functional use, motivation, motoric abilities, and referential concreteness. If possible, a voice-over describing the decision making process for the various signs can be included as the signs are being taught.
4. Facilitator and learner should be using signs in combination with other methods of communication, (i.e., gestures, object cues, touch cues) in order to enhance the communicative interactions.
5. The facilitator should observe, respond to, and use all communication methods used by the learner, including behaviors.
6. The facilitator and learner should be engaged in the same activity making sure the facilitator is not directing the activity. The two should be partners sharing the activity.
7. Turn-taking should occur throughout the activity.
8. A variety of communicative functions should be expressed by the learner and the facilitator, including choice making, requesting and item, requesting more, requesting

help, gaining attention, protesting, commenting, confirmations, negations, greetings, and terminations.

9. Coactive and Interactive signing should occur simultaneously during communicative exchanges, to facilitate language development. These are not separate states of development.

   Coactive - manipulates the learner's hands to form signs on the learner's body.
   Interactive - deaf-blind learner feels the sign on the partner's body. Each communicator forms signs on their own body. The listener, if visually impaired, receives sign tactually by placing their hands over the person's hands expressing the signs. A partner can provide tactual cues to a learner that they are waiting for a response by placing their hands over the learners.

10. A conversational approach must be used. Interactions should be spontaneous as well as "engineered" by the facilitator. The learner must be provided with reasons to communicate, use movement and act upon the environment.

11. The rules of ASL should be incorporated into communicative exchanges. The facilitator must use caution not to attempt to manually code English. Native Signers should be considered.

Suggestions for Training Video tapes

One problem that we have noticed with our own staff as well as others who are just beginning to work with totally blind and deaf students is that if they know sign, they want to start with signing right away with their students. This seems to be a double edge sword. The staff person is trying to establish their own sign competence in the eyes of their employer. However, more often than not, they are communicating at a level way beyond the student. It is also difficult for staff and parents to acknowledge the amount of communication that can take place on a prelinguistic level. Other suggestions include:

1. Get out of the studio and into actual homes. Identify model parents with children at various age/communication levels. Film the natural interactions between parent and child, blunders and all. Parents "out there" will need to see what is real, what reasonable expectations are.

2. Film in a variety of environments and at different times of the day:

   a. waking up

b. changing diaper

c. breakfast, lunch and dinner

d. bathing

e. outings to the store, park to visit friends, etc.

f. play time

Sixty-five professionals responded to a field survey. These responses were used to help formulate the rationale and content of the scripts for the video tapes. A SKI*HI Staff member also visited programs in the United States that use interactive tactile communication with children who are deaf-blind. Staff were interviewed and observations of interactive tactile signing were videotaped. The results of these provided valuable practical information and suggestions on interactive signing.

The final scripts were a result of the review of literature, the survey of agencies and on-site visits. The following is a description of the video tape series using tactical interactive conversational signing with individuals who are deaf-blind. The following are the topics which are included in the series:

Topic 1	Encouraging Independent Signing: Moving from Coactive to Interactive Signing
Topic 2	Establishing a Foundation for Conversational Interaction: Encouraging the Child to Sign Interactively
Topic 3	Suggestions to Encourage Language Development: Vocabulary
Topic 4	Suggestions to Encourage Language Development: Using Comments, Directions, and Questions
Topic 5	Creating a Communicative Environment
Topic 6	Selecting Materials and Activities That Promote Interaction
Topic 7	Establishing Guidelines for Effective Conversation
Topic 8	Conveying Emotions and Meanings Through Tactile Signs
Topic 9	Fingerspelling
Topic 10	Encouraging Interaction With Peers and Others Within the Community
Topic 11	Interpreting and the Individual Who is Deaf-Blind

In this series of video tapes are suggestions and strategies to assist in providing quality services for individuals who are deaf-blind.

TOPIC 1: Encouraging Independent Signing: Moving form Coactive to Interactive Signing

Hearing and sighted children learn language and develop interactive language skills primarily by hearing others and watching them in common everyday events. They learn language incidentally and casually in a variety of situations. Individuals who are deaf-blind are frequently unable to learn language and interactive language skills incidentally because they may be unable to hear spoken conversations or see signed conversations.

Consequently, the amount of interactive communication the child who is deaf-blind is involved in is usually much less than the hearing and sighted child, resulting in limited language growth.

All children must first learn about communication before they learn a language. When a child cries because he or she is hungry or scared, his or her parent comes to answer the child's cry. The child soon learns that crying gets him or her what he or she wants. This is the beginning of communication.

The child begins to realize the power of communication. When the child smiles, he or she gets a lot of attention, and when the child coos, mom and dad talk back to him or her and play with him or her even more.

The child hears his or her parents' words and connects them with his or her actions, begins to use those works on their own, and eventually, through these interactions, begins to develop conversational language skills.

Communication skills are equally as important for the child who is deaf-blind as they are for the sighted and hearing child. In order for conversational language skills to develop in the child who is deaf-blind, he or she must first be able to communicate in and about a wide variety of real life experiences.

The child must realize the power that communication gives him or her before the child has a need for interactive language. He or she must have a variety of opportunities to communicate in functional everyday activities using a communication system that the child knows and is comfortable with.

It is vital to observe the child who is deaf-blind to learn how he or she is communicating and what he or she is communicating about.

This observation begins early in the child's life when he or she somehow signals to you that they want something, and thereby alerts you to their needs. As you learn to

understand his or her signals and respond to the child's needs and communicate back to them using signals and cues, the child begins to understand the value of communication. The child starts to communicate interactively because he or she know that their communication gets them what they want or need.

When your child understands and uses a few signals and gestures interactively, he or she is ready to move on to a more formal system of communication. This formal system should be one that is more easily understood by others outside of the home. It also should allow the child to express a wider range of ideas including abstract ideas.

For many children this formal communication system will be manual sign language.

On the first series of tapes in this program, you were given information on the use of signals and cues in early communication.

The second series of tapes provided you with a dictionary of coactive signs that you can use with your child.

In this series of tapes, we will present information to help you comfortably and effectively interact with your child and others who are deaf-blind. You will see some suggestions for interpreters who provide services to persons who are deaf-blind. And in the last lesson, adults who are deaf-blind will share information about their lives and experiences.

In this lesson we will show you how you can help your child move from coactive signing .

This is the first step in being able to sign in back-and-forth or interactive ways with your child. Although we have discussed some of these ideas in previous lessons, a review here is important. Helping your child move from coactive to independent signing is the foundation for all later interactive communications.

First, let's talk about the basic differences in coactive signing and interactive signing.

Coactive signing is a method of signing to the individual who is deaf-blind hand on hand.

Interactive signing is using signs independently in conversational interaction.

Interactive signing involves a give and take of information between two people using the same language system.

Coactive signing introduces signs and provides tactile feedback to the child who is deaf-blind.

The child who has limited or no vision or hearing may need this coactive help to develop sign language skills.

However, if coactive signs are used for too long, your child may get a distorted view of conversational interaction because he or she does not make the sign independently, and your child does not take a conversational turn on his or her own.

The child who only receives coactive signs with no encouragement to act on his or her own will become a passive communicator instead of a partner in communication.

Unless the child is encouraged to communicate independently and realize the power that language has, he or she may never reach their full potential as communicator.

Remember, the ultimate goal for anyone, including the individual who is deaf-blind is to be as independent as possible. This is especially true with communication and language.

Therefore, it is important to combine coactive signing with techniques that encourage interaction and independent signing by your child.

Helping the individual who is deaf-blind make the transition from coactively signing to independent and interactive signing should be encouraged as soon as possible.

As discussed in the introductory video tape to this program, you will need to determine when your child is ready to transition from coactive signing to independent, interactive signing. To make this determination, observe your child's behaviors and watch for some indicators that were discussed earlier.

For example, does your child show an ability to imitate movements and actions? Does your child demonstrate an understanding of some signals and signs? Does your child use signal and signs intentionally and meaningfully? Does your child show an interest in objects and use them in meaningful ways?

When you determine that your child is ready to develop interactive signing skills, you may want to choose one or two signs to focus on. Then systematically encourage your child to make those signs independently. Naturally, you will have to do this in conjunction with coactive signing as you and your child progress towards a more interactive sign system. When selecting the signs that you will encourage your child to make on his or her own, keep four suggestions in mind.

First, select signs for activities or objects that are motivating to your child or that your child wants. If you present the coactive signs for cheese, but your child doesn't like or want cheese, the chances of using that sign independently are unlikely.

But, if your child's favorite treat is a chocolate chip cookie and you introduce that coactive sign to your child, he or she will be more motivated to make the sign on their own, especially when they realize that signing "cookie" gets them a cookie. Try to start with signs that you think your child wants to use, not signs that you want him or her to use.

Second, select signs for objects or activities that your child recognizes. The first signs that you encourage your child to make independently should be signs that can be paired with an object or a specific activity that the child easily recognizes and enjoys. The object or activity then becomes a prompt to encourage spontaneous use of the sign.

For example, Rachel loves to listen to music. Over the past few weeks her mother has been combining the coactive sign for music with a wind up music box. She is encouraging Rachel to sign "music" independently. Because Rachel recognizes the object, knows what it does, and because music is motivating to her, she attempts to sign music independently when the music box stops and her mother asks if she wants more music.

If your child is using signals to communicate, you can help your child learn signs by pairing his or her signals with the appropriate sign, like this.

Because this signal has meaning for the child, he or she is helped to learn that the signs have the same meaning as the signal.

Third, select signs that your child understands receptively. In other words, choose signs that your child recognizes when he or she feels you make the sign. Of course, the only way to know if your child understands a sign is by watching his or her reaction to the presentation of the sign "ice cream."

John knows that the sign "ice cream" means he is going to get one of his favorite treats.

Since getting that treat is very motivating, he is more willing to sign for the ice cream by himself.

Fourth, select signs that are functional and meaningful to your child and part of his or her daily routine. For example, Wally selected "jump" as a sign for Shaun to use independently since he loves to jump on the trampoline and he jumps on it everyday.

Next, let's discuss several ideas you can use to encourage you child to make signs independently.

First, show your child the object represented by the sign that you want him or her to make.

Then you make the sign while the child watches or tracks your sign. Give your child time to respond. If he or she responds by trying to make the sign or by signaling in some way that they are excited about the object, reinforce your child positively and let them enjoy the object. In this case, enjoying the object means listening to the music, so Diana helps Rachel listen to the music by winding up the music box.

Next, if your child does not make the sign, but instead signals to you that he or she is excited, let your child feel you make the sign again, then help him or her make the sign coactively.

Finally encourage your child to sign independently through gentle prompting. Initially prompting can be done by giving your child just a little help to make the sign.

Once your child consistently completes the sign on his or her own, you can decrease your assistance. For example, instead of forming the hand shape you may try just tapping your child's hand to encourage him or her to make the sign on their own and get what they want. Of course, if you prompt your child and he or she doesn't make the sign, you will want to help them complete the sign so they know exactly what you expect of them.

Eventually, your child may not need a prompt to complete a sign because your signed request will be understood and your child will respond appropriately.

Keep in mind that even when a child is able to make some signs independently, you may still need to continue using coactive signs when teaching new or hard to imitate signs. This process may continue for a very long time. When a child can imitate a new sign simply by tracking the adult's hands, coactive sign presentation may no longer by necessary.

Let's review how you can encourage your child to make a sign on his or her own. When possible, show your child the object that represents the sign. Make the sign for the object.

Give your child time to respond. If your child responds in any way, reinforce him or her positively and allow your child to enjoy the object. If your child did not respond by using the sign, let him or her feel you make the sign again. If your child doesn't respond by

making the sign, help him or her make the sign coactively. Then encourage your child to sign independently through gentle prompting.

Be aware of the fact that it may be more reinforcing for your child to receive help to make this sign than it is for your child to make the sign on his or her own.

Try to avoid making the prompt too rewarding. Gradually withdraw the amount of prompting so your child is encouraged to sign independently.

Remember that children who are deaf-blind often have difficulty at first producing signs with clarity and accuracy, especially if they have no usable vision. They have a hard time perceiving where their hands are in space in relationship to their body. Don't worry about this at first. Simply continue to give them an accurate model by correctly making the sign.

When you notice that your child consistently uses the sign in appropriate situations, begin to give him or her some help to make the sign more accurately. Don't discourage your child by correcting his or her signs too often at first. It may help to analyze why your child is forming a sign poorly.

Perhaps the child is too young for fine motor movements or their motor impairment may prevent them from making the sign, or maybe the sign is too complicated with a different shape of reach hand, or they may be missing some aspect of the sign because you aren't forming it clearly. Correct your child gently when necessary, and remember to reward him or her for signing on their own.

As you use these suggestions, you will be helping your child make signs on his or her own. Once your child is making signs independently, you can encourage him or her to use these signs more meaningfully and interactively with others. We will discuss this in the next topic.

PRODUCTION OF MASTER VIDEO TAPES

The master tape was produced in the studios and on location by Research Video Services at Utah State University and the staff of Project TIPS. The background research, the development of the rationale, and the writing of scripts for the tactile signals system and the tactile interactive signing system were done desperately. When the scripts were completed, both series were produced together.

A Master Production Schedule was planned with a series of 13 major activities that were timelined which the production staff outlined for each activity.

ACTIVITIES	PERSONS INVOLVED
1. Finalized the design of the video formats.	Coordinator Assistant Coordinator
2. Made general production plans for the scripts.	Coordinator Assistant Coordinator
3. Organized the production team. The team consisted of the following:	Coordinator Assistant Coordinator Production Crew Deaf-Blind Consultant(s)

Production/Instructional Designer:
This person oversaw every aspect of the project and was the principal designer of the tapes (the Project Coordinator assumed this role).

Assistant to the Producer and Principal Script Writer:
This person worked under the producer to prepare all scripts and assist in all aspects of design and production (the Assistant Coordinator assumed this role).

Educational Consultant:
This person ensured accuracy and effectiveness of instructional content (Deaf-blind consultants assumed this role).

ACTIVITIES	PERSONS INVOLVED
Production Director: This person oversaw the actual audio/visual production of the program (the Director of Productions in USU's Developmental Center for Handicapped Persons assumed this role).	
Production Crew: These persons assisted the Production Director in all aspects of production, including preparation of the teleprompter, staging, filming, and editing (these persons were production staff members in USU's Developmental Center for Handicapped Persons).	
4. Discussed video design, scripts, budget, and production timelines with production team.	
5. Story boarded all scripts.	Assistant Coordinator
6. Designed graphics. Worked with graphic artist to produce graphics.	Coordinator Assistant Coordinator
7. Selected talent. These persons were the actors and actresses that were filmed on tapes. A nationally know deaf-blind actress, Kim Powers was the featured actress. Kim stars in the series "Kim's World" that is on the American Disabilities Network.© Nationally know and local deaf-blind individuals were used as talent in the filming. Also used were local instructors who were selected in an audition process.	Coordinator Assistant Coordinator Talent

8.	Met and rehearsed with talent.	Coordinator Assistant Coordinator Talent
9.	Contacted families with young deaf-blind children for participants in filming.	Assistant Coordinator Families
10.	Conducted rehearsals in the homes of these families.	Assistant Coordinator Families
11.	Conducted filming.	Assistant Coordinator Coordinator Production Crew Talent Families
12.	Logged all videotapes.	Assistant Coordinator
13.	Conducted all editing of video tapes.	Assistant Coordinator Production Crew

MARKETING AND DISSEMINATION

As stated in the Project Proposal, the finished video tapes will be distributed by H.O.P.E., Inc. H.O.P.E., Inc. has already advertised the tapes, and orders have been received. Because of the time involved in closed captioning, the master tapes will be turned over to H.O.P.E., Inc. for distribution on July 1, 1993. H.O.P.E., Inc. will have STS Production Studios in Salt Lake City, Utah copy the tapes.

H.O.P.E., Inc. will distribute the tapes at the price of only $25.00 per tape.

SUMMARY:

Project TIPS researched the areas of tactile communication by conducting two comprehensive reviews of literature, by conducting information gathering surveys of agencies serving individuals who are deaf-blind and by project staff visiting on-site and observing the use of tactile communication. A philosophical and functional basis for the video tapes was developed. Part of the staff developed the area of signals and cues while the other staff members developed the interactive conversational signing area. Content topics were developed. Scripts were written for each topic area. A master production plan with

timelines and personnel were developed. The mater tapes were made. Each master tape has been closed captioned. The following is a summary description of the video tapes produced by this project.

I. INTRODUCTION TO TACTILE COMMUNICATION FOR CHILDREN WHO ARE DEAF-BLIND One 60-minute videotape

This important part of the series describes how to relate to a person who is deaf-blind through interaction, and how to recognize and accept all of the child's ways of communicating. There are suggestions as to how to enable the child to access new people, places, and events. A discussion is included to help parents decide which tapes to access first, and how to use either series to meet the child's needs and the family's priorities.

II. USING TACTILE SIGNALS AND CUES WITH CHILDREN WHO ARE DEAF BLIND A set of four 60-minute videotapes

Topics in this set include: encouraging the child to relate to people, deciding what signals to use, signal use in the daily routine, responding to the child's signals, turn-taking, giving the child choices, using coactive signs with signals, enriching activities to encourage communication, and encouraging the child to become an active communicator.

The first four topics are narrated with abundant illustrations showing children who are deaf blind interacting with professionals and parents. Techniques show how parents and professionals can lay a foundation for signal and cue use. The remaining topics show the presentation of basic skills. Activities follow showing signals and cues as used in daily activities and routines.